

Still Alive With Sir Clive!

ZXir QLive Alive!

The Times/Sinclair North American User Groups Newsletter

Volume 6 Number 2

Summer '86

Chairman

Donald S. Lambert

Ansburn, IN

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Boothill - after the OK Cord fight.



Tombstone - The town too tough to die
So is Sinclair

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ESTABLISHED 1981

THE TIMES/SINCLAIR NORTH-AMERICAN USER GROUPS NEWSLETTER

T/SNUG Information

Here is the list of T/SNUG Chapters and how to contact them. We wish to support the following: 602a-ZE-6081, T5-1000, 576CTRUM, T5-2000, TC-2000, Z44 and Q1. If you have any questions about any of these list members contact the

Chairman

Chief Moderator

Donald S. Lambert (CATUC)

Vice-Chairman

Tape & BLO PD Library

D G Smith

463 Stone St.

Johnstown, PA 15906

814 330-6991

Z44 Library

Dave Bussan (JAT50J2)

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ZE-81 PD Tape Library

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ZXir QLive Alive!

is the newsletter of TSNUG, the Times/Sunday North American User Groups, providing news and software support to the T5 community in a VOLUME of their newsletter per year, beginning with the Spring (March) issue.

TSNUG's main goal is to keep our Magazine, our vendors and our repair service alive for the benefit of T5 users.

These valuable services shall have free advertising space in the next supported Newsletter so that they can see that we are still active and here. We must support them because whenever possible.

Another TSNUG goal is to search sites of all known Public Domain and commercial software available for all Times/Sunday machines, building a library and providing lists of this software showing both the source and the availability.

If you have solved a problem or you have a problem in one of your software or hardware, please share it with the rest of us.

Welcome
James P. Curry

Treasury Note

As of June 10, 1996, we have a balance of \$1312.75

You can keep T/SNUG alive by an annual contribution of \$12 for one VOLUME made payable to Abel Kahale. Send check to -

ABED KAHALE
3343 S FLAT ROCK CT
SIERRA VISTA AZ 85635

Back copies are available for \$8.75 each postpaid.

Article Contributions

Send in your articles by tape or disk and your inputs to:-

DONALD LAMBERT

ZXir QLive Alive! Newsletter

1301 KIRLINGER PL

AUBURN IN 46706-3010

Phone 219 923-1372

By hardcopy or modem (300-14-4) to:

Abel Kahale

103457.2446@compuserve.com

GATOR's TWISTED PAIR

To better inform the Section Community how 24-hour a day BBSs are now provided to serve you. You are encouraged to exchange mail and use the files sections of these boards. Fulltime and site are available to all.

Q-Bot BBS 518 254-9878

Udon, Michigan

BCC BBS 888 745-8274

Miami, Florida

SOL BBS 518 882-6388

Tucson, Arizona

MMCC BBS 847 432-5555

Achilles, Brighton, Illinois

If you know the Internet E-Mail address of a Section user, but do not have access to Internet, simply address your E-Mail to GATOR. Thanks on the 24-hour MMCC BBS and include the name and E-Mail address of the user you wish to reach. Users should the MMCC BBS from time to time if you expect a reply.

We encourage you to exchange mail and contribute to the Twisted Pair Chat and register using your first, last name and phone number along with a password you won't forget. **WTF is BBS?** Do not try to do anything else this first time.

When you call on the next time, you will have Level 1 security and be able to enjoy full user privileges. The BBS has smaller sections called conferences: Select "1" for "Join a Conference" Select "TRAP" to get into the Section Section. The mail you then read will only be from other T5 users. Use extension ART for articles, ADD for ads and WTS for news when updating.

For help, contact the SYSDOP, Bob Swager, by leaving a message, mail, E-Mail or phone

Input/Output

+ Alton Kahlke

Thank you all for your kindness, appreciation and encouragement. And special thanks to our article contributors.

I will have to admit that I did not spend much time computing. I did spend a lot of time and sweat digging and planting trees and bushes in my yard - exercise is good for you —they say— and exercise I did. Faced with a yard covered with red clay, no shade no grass, I had to get it done while I ran.

CALCIBEE is what it is called. Dig a five inches down and that grey cement like dirt with stones and rocks. The stones is all so wet at all, the pollen is the only way. At my age? No way! So here is what I did, dig down to the redstone, fill the hole with water and wait overnight for the water to soak into the lumpy ground. Yes, it takes 12 holes or even more. The cement (a-la-calcibee) then gets well enough to break with a five-foot loader bar that I got myself. It is a sort of manual job loader.

After digging some 35 holes and planting, I had the yard covered with rocks and I am done. No lawn for me, I walk one of one for 32 years and now here it has to be sprinkled daily yet.

Sunny days and starry nights, beautiful but very dry this year— I am told. Haven't rained (sprinkled) for two months, but the monsoons will be coming July/August. We had a week up to 94° but in the 30's at night. To my surprise, I found myself working in the sun until it got to 90 when it felt hot and it was time to go inside.

Back to computing:

I completed and mailed two newsletters since my move. I have been sending the master to GATOR, who makes copies and send them to me to mail. We found this arrangement to be the least costly.

Thanks go to ---GATOR---

E-Mail

Can you tell me how I can get my hands on a QXL QL card?

I have limited funds, and I would love to have a QL again. My old QL died three years ago at Camp Lakemo. I have a lot of software that I wrote for it on 5.25 FDDs. Does the QXL have a QL, compatible card edge connector? Thanks for your help.

David Johnson
email:

g_david_johnson@usa.com (home)

goaga_djohnson@trivacurry.mil (work)

P.S. Love the ZQA mag. I will be receiving ASAP!

DAVID JOHNSON

3517 DUNEDIN DR 102

CHESAPEAKE VA 23321

Help

Hi Alton,

Thanks for sending me the Winter '95 issue of TRIMAX newsletter. I've read it about 30 times, it never gets old. I really appreciate all the vendors and suppliers listing their stuff; I have contacted a few already.

I have a question. I have an old TRIMAX model 4p the mother board is bad, is it possible to take out the mother board, replace it with a TS1080, and use the Tandy single sided floppy drives, and the Tandy keyboard, and the monitor? If so, what kind of disk interface would I need and would I need any kind of interface for the keyboard?

popa@valleyprint.com

<http://valleyprint.com/~popa>

Internet Society

HTML Writers Guild

Computer History Association of California

KENNETH H. HARBST

8070 N MARCO AVE 108

FRESNO CA 93711

I am glad that you enjoyed our ZQA Newsletter. Words like yours keeps me going. As far as the TRIMAX, I never had one nor had any experience with it. But all is not lost, I am forwarding your e-mail to Bob Sawyer who once had a TRIMAX.

His Internet address is: CEH0108@earthlink.net.

Dear Alton

Thank you for your last mail. Please let me know when you receive EX-TEAM MAGAZINE #96 and of course tell me your opinion about it. Please do not hurry with the back issues of ZQA! I have very much time. And please do not send it by e-mail to save postage!

I have to copy some back issues of EX-TEAM MAGAZINE for you, so I will have to do some work too.

I wrote some letters to advertisers in ZQA! and now I'm waiting for their answers, because I would like to buy some hardware.

Yesterday I got a very nice letter from Jack Dehany who wrote about KIL in ZQA! He was in Germany as a student about 35 years ago and he still has a very good knowledge of the German language. What a surprise!

I look forward to hearing from you

your sincerely

Peter

PETER LIEBERT-ADOLF
LUIETZOWSTRASSE 3
D-38102 BRAUNSCHWEIG
GERMANY

I have to say that your MAGAZINE is the best ZX-SI I have seen lately. We don't have anything like it.

I mailed you the ZQA! back issues on 30 May. I just started to work on the next ZQA! I did receive the International ZX-SI Magazine and all of the

ZX-TEAM back issues.

Thank you Peter.

**Jack DeHany, do I hear someone
volunteering to translate some articles
from the ZX-TEAM MAGAZIN ???**

Please find attached the latest copy of S.I.P.D. SOFTWARE catalogue. The files were compressed using INFOZIP-ZIP and should be uncompressed with INFOZIP-UNZIP. However if you do not have the INFOZIP package, the standard QL UNZIP will uncompress them. <<< SPOCAT.ZIP >>>

A copy of SPOCAT.ZIP has been sent to our QL Librarian. See page 2 for address.

Abel has been holding off asking you for a current list of those folks subscribing to UPDATE! So that ZQA might get a jump on the situation, might you send a list of perhaps the last two years' worth of names to Abel? He can then make up a mailing list.

-----GATCIP-----

Re: UPDATE! to ZQA!

Hi Bob, I will send him a list as soon as I find the spare time, caught up in the April issue at the moment, plus working on a new PWD COMPUTING catalog, as well as filling orders. But I will make the time in the next couple of weeks. Thanks to you and Abel for all of your support. Idata@valnet.holn.com

A little of this and a little of that

Well this is my first attempt at writing an article of any kind, so please bear with me. First I would like to let you all know that I run a Singular support board in Helsinki, Finland called the SCC BBS (The Singular Computer Connection BBS) the phone # is (095) 945-8274 and is available 24 hours a day all year around.

I am also in the process of creating a SCC BBS version for the Internet. That is to say that you will be able to reach my SCC BBS on the Internet as well, but it will be much bigger version. I would like for any of you to send me any ideas as to what you would like to see included on the Internet version. To send me feedback either call my BBS listed above or call Q-Box USA and leave me feedback there.

One more thing that I would like to say, is that I would like some good Z80 assembly language programmers to contact me because I have a project for the ZX81 that if it succeeds it will put the ZX81 back on the map again.

The following are ways you may contact me.

SCC BBS (AX) 945-8274

JOSE B. MORAÑO

8871 N GLADES DR APT3

NORTH MIAMI BEACH FL 33163

or on the Internet at d05n@valnet.holn.com.scc.hi.fi (a)

From: GATCIP Singular

To: John Keady Re: MTH

Hi, Jose,

Mike Curry gave a very informative, interesting and pleasant sounding MIDI demonstration Thursday evening at the Orlando meeting. Mike is a collector of vintage analog boxes, player pianos and any music on MIDI disk that may have for the score player piano rolls. He can be reached by mail at:

Mike Curry

PO Box 130

Prospect TN 38477

615-474-3753

Guest newsletter Abel!

In the Spring when Peter Lahten-Ahola mentioned that he wrote to Ranney Kist at L.I.S.T. but got no answer. They got a lot of mail then and sometimes someone besides Harvey wrote in answer. L.I.S.T. is still going. I am also a member and I got the newsletter.

Many years ago in one of the US TS magazines, there was an article on how to build a color video interface, he switched 40K memory and expansion channels for the TS1000. I think it was SYNC magazine, I'm not sure. Does anyone have it? **Anyone?**

Does anyone know where I can get a ULA and ROM chip for the TS1000?

Thanks for a great read.

Ken Harbit

8070 N MARCOA AVE 108

FRESNO CA 93711

Ken, I think your best bet is buy a TS-1000 and take out the chips you need. They sell at go-away prices.

This is just a quick note to inform you that S.I.P.D. SOFTWARE now has full FAX facilities on the usual number of (+44) 01382 707767. Established customers will be able to fax orders and I will dispatch the disks with a 14 day express. This facility is also offered to small orders from established customers.

Good luck

Steve Johnson

S.I.P.D. SOFTWARE.

From: Jay Shapard through -----GATCIP-----

Message-ID: <Mozm00079RAD-MQVIAIADQ= MTC=US7@MIDI>

Just got the ZQA. Fine job. I do like your MD even w/OA/ORA's V's. Thanks for all your effort from the sunny South.

Mail Bag

Finished photos that, Abel, my entry for into the world of "Thomas" computers. Inspired reading of your travel to "The Land of AZ", what a telling comment it is on our lifestyle to read of your packing your computer within reach the same as your tooth brush. I had to have a computer with me, I said (closed my) the old house by train and telephone. **AAA**

The problem it seems, from my observation, is that it

is high on to as possible for a middle income (Real GATOR's Empty Good Buckets) family to afford more than one platform of one of them is a d38

Except for John Oliver & Larry Kasey it seems the bulk of the TG programs has been made by retired folks. At 34 I can't wait till I have that time. Having said that I'm sure I'll meet the folks who now occupy most of my spare time.

My hat's off to you Albed, Keep up your interest - we sure have been the beneficiaries

John Shepard

Dallas, TX

Dear Albed,

Thank you for the information about TOSUG. I have a TS-3000, and two emulators for my PC. I also have four Spectrum emulators. I plan to get a 386 sometime soon. Thank you very much.

Ken Herbit

Fresno, CA

Dear Albed,

Time sure flies! Thanks for the info you passed on obtaining technical info from Nat'l Semiconductor. Sayse then, most of the semiconductor manufacturers have gone on-line and I've found most of the technical literature I need on the web.

I have built a prototype busmastering card that can handle up to 8 MB and comes with 128K on board. The memory is divided into 8K chunks as with the three internal banks (HOME, DOCK, EXTEND) and operates in much the same way. Each chunk can be programmed to behave as ROM or RAM. I have since redesigned the card in a very ambitious manner. When this is done, I'll submit a project to GAT.

Keep up the good work!

PS: I have uploaded a few programs to

ftp://ftp.cmg.com:netpub/irwinale/tdts/t2-000/ on the INTERNET that would be of interest to TS3000 owners.

The first is smd2flo.zip that will allow JLO disk owners to LOAD and RUN the thousands of Spectrum games floating around. The other is spayer.zip which plays WAV files, etc. Record this on the 386's second chip. You will need access to a PC to UNZIP and transfer the programs and data to disk for use with your JLO disk system.

Alvin Albrecht
265-6002 Beaumont Dr SE
Calgary, AB Canada T2J
4L4

JLO

**Grant Thomas
CATUG**

Dear Albed,

What are you going to do with that 31296 34 in treasury? Buy a Macintosh?? (\$ a r e !), but how do you program the thing? (d38)

Reduced a my 412 — that too much about QL in 230r and not much else — I am not flury, how about something about 238 borders an ad. My TS3000 still used rightily along with Mac Performa, CD-32/3M exp. Pleasant! but wish I could program Mac like the 230r. My 230r is the 416 sports car with million gear shifting and our much horsepower — about like a '58 Austin Healy, but Mac's are the long drives along a time — if you got tired with the scenery, there's not much to do.

I keep thinking to write whole about my Mac attack but too many projects.

Best to you,

Joan Keady

Shackletonville, TX

Wanted:

288 articles. Anyone? Please!

I read your letter to Albed on the Internet. Congrats on the Performa. At work I have a Centre 610 with a 23 inch silver screen monitor. It is part one of three machine is very well productively good needed to accomplish the tasks that I am required to do. I can't help wonder why you wound up with a Performa! The last time we connected you were interested in MIDI and I said you might look into the Tandy Color Computer 3.

Phil Kertowicz and I went again this year to the Fifth Year Annual Chicago CoCoFEST in nearby Elgin Illinois. We bought more half height DOSHD drives for TS3000/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100/101/102/103/104/105/106/107/108/109/110/111/112/113/114/115/116/117/118/119/120/121/122/123/124/125/126/127/128/129/130/131/132/133/134/135/136/137/138/139/140/141/142/143/144/145/146/147/148/149/150/151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000/1001/1002/1003/1004/1005/1006/1007/1008/1009/1010/1011/1012/1013/1014/1015/1016/1017/1018/1019/1020/1021/1022/1023/1024/1025/1026/1027/1028/1029/1030/1031/1032/1033/1034/1035/1036/1037/1038/1039/1040/1041/1042/1043/1044/1045/1046/1047/1048/1049/1050/1051/1052/1053/1054/1055/1056/1057/1058/1059/1060/1061/1062/1063/1064/1065/1066/1067/1068/1069/1070/1071/1072/1073/1074/1075/1076/1077/1078/1079/1080/1081/1082/1083/1084/1085/1086/1087/1088/1089/1090/1091/1092/1093/1094/1095/1096/1097/1098/1099/1100/1101/1102/1103/1104/1105/1106/1107/1108/1109/1110/1111/1112/1113/1114/1115/1116/1117/1118/1119/1120/1121/1122/1123/1124/1125/1126/1127/1128/1129/1130/1131/1132/1133/1134/1135/1136/1137/1138/1139/1140/1141/1142/1143/1144/1145/1146/1147/1148/1149/1150/1151/1152/1153/1154/1155/1156/1157/1158/1159/1160/1161/1162/1163/1164/1165/1166/1167/1168/1169/1170/1171/1172/1173/1174/1175/1176/1177/1178/1179/1180/1181/1182/1183/1184/1185/1186/1187/1188/1189/1190/1191/1192/1193/1194/1195/1196/1197/1198/1199/1200/1201/1202/1203/1204/1205/1206/1207/1208/1209/1210/1211/1212/1213/1214/1215/1216/1217/1218/1219/1220/12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21/2222/2223/2224/2225/2226/2227/2228/2229/2230/2231/2232/2233/2234/2235/2236/2237/2238/2239/2240/2241/2242/2243/2244/2245/2246/2247/2248/2249/2250/2251/2252/2253/2254/2255/2256/2257/2258/2259/2260/2261/2262/2263/2264/2265/2266/2267/2268/2269/2270/2271/2272/2273/2274/2275/2276/2277/2278/2279/2280/2281/2282/2283/2284/2285/2286/2287/2288/2289/2290/2291/2292/2293/2294/2295/2296/2297/2298/2299/2300/2301/2302/2303/2304/2305/2306/2307/2308/2309/2310/2311/2312/2313/2314/2315/2316/2317/2318/2319/2320/2321/2322/2323/2324/2325/2326/2327/2328/2329/233

FROM THE CHAIRMAN'S DISK

Donald Lamborn

Sometimes in my activities around the house I lost track of time and Abert's cat suddenly made me aware that I needed to get some material for ZXr QLow Alive! I do need to pull my head up out of the sands once in a while to see what is going on in the world.

Abert mentioned that Bud Owens of BMDG ENTERPRISES was down with a medical problem. He was hospitalized with his feet and legs elevated for a while. From the last I heard from Bud he is recovering and on his feet part of the time. I had an order in and it finally got delivered. Knowing about the problem I waited patiently for it to appear.

In the last issue of ZXr QLow Alive! on the bottom of page 28 is an ad by **new** correspondence in the 2048 EMULATOR by Keith Watson. "While

preparing to move to a single computer instead of several is making me consider that option, but not willingly or with any desire to do so, but the prospect does raise some questions.

Anybody out there with the answers? Question 1) What is the minimum MSDOS computer that is required to run the 2048 EMULATOR? Question 2) What is the best way to move software from the disks and cassette to an MSDOS computer? I suppose that a modem would work, but would of Alex, from Les Cottrell is the use of a Radio Shack Audio Amplifier Speaker (RS 377-100C) to enable a direct computer to computer transfer. But it would be nice to transfer disks directly to the MSDOS computer but that is impossible or is it? (7 is)

What are we going to do in the domain of UPDATES MAGAZINE? The last issue was October 1987 and it looks like the last issue is to be July 1990. Nine years for a computer magazine that was for obsolete computers. It is a great magazine but being great is not all that is necessary for survival. It requires a lot of time even after all copy is received and the printing begins. Then after printing the pages have to be assembled and stapled and mailed. Bill Jones did great service for the TIS community and turned it over to Frank and Carol Davis who also did great service to the TIS community. I know that it wasn't an easy decision to make but one that had to be made. Bill Jones and Frank and Carol Davis should receive a standing ovation for their dedication to the TIS community. We at ZXr QLow Alive! salute Bill Jones, Frank and Carol Davis!!

In my little working with the Z80, I did discover that part of my definition was in not realizing that the names of functions are different than on the TIS 2048. I did get the floppy drive to operate. However, on my first FORMAT attempt I got the message that stated no disk or assem-

bled. Two more tries gave the same results. So I changed disks and that ended with "Done OK" and a CAT showed 202140 bytes so it had FORMATTED correctly. I had the help of Murphy's law! I had purchased a quantity of used disks (4 5 1/4) and the last one I tried was bad.

The Z80 disk manual states to finish the program into BASIC. Why the manual doesn't state to LOAD the program into BASIC by ?? is beyond me! However, to use the disk drive requires more RAM than comes with the standard Z80 and more RAM is required for some programs anyway. So now I have a more expanded Z80.

I just now realized that I have "The BASIC HANDBOOK" and this edition has 824 pages. Is it (I just looked) was the command CHAIN which is what the Z80

needs to LOAD a program. So I guess I

will have to use that in addition to the Z80 manual and Z80 MAGIC to more fully understand what is going on. I will have to sit down and make out a list to make me all I learn what is going on

with the Z80. Regardless of what they say, computers have added another layer of complexity to life. Technology is not live it requires one to learn more to use the newer methods. Look around you, terminology is changing. For instance, when I was young it was not unusual for someone to comment like "Och to such a guy get". Say that now and you could get punched out of school. At one time guy meant happy or cheerful.

I thought that I had the answer to re-wiring my printer ribbon. A felt pad is glued onto the ribbon cassette and then it is inked with special ink. The ink is messy. But there is one little problem that surfaced when I tried to use a reversed ribbon. On my printer, the head goes to the left into open mechanism and hits the felt pad and goes dead short as it tries to get into the most left position. I will have to see if I can shear enough off of the pad to allow the print head to get into the most left position or else get the pad inside the ribbon cartridge and put a hole in it to allow a drop of ink to be added easily. The short does show that options on some cartridges but not mine. No matter what system is used there is some ink that gets onto the hands and machine's cleanup staff (XXXXX in my case) gets all the ink off. I could glue the pads in a sort of tongue and use a screw to pull the ribbon through the tongue but that is so time consuming.

With that I will leave space for someone else. Does anyone have a problem with the TIS 2048 and wants to know what others have done with the problem? I just might have entered in the newsletter that covers the subject. I can't look it up and type it in, if I don't know what someone wants to?



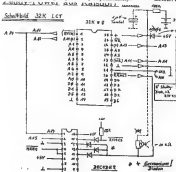
EXPAND YOUR ZX-8 | MEMORY TO 32K

Abstract

You need the schematic of EXX, some know-how in soldering and some parts you can buy for pocket money.

[†] Connect pin 2 (A12) to A11, that is the anode of D3 and the 74V01 GND.

School Model 2006 LCT

[illegible]

1. EAF 22 K 4.8 (EAF, Taping TC
 2. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 3. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 4. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 5. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 6. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 7. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 8. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 9. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)
 10. 17.2.4.8 (EAF 22 K 4.8 - 17.2.4.8)

Das ist hochinteressant:
AC = 100, das
heißt, im Schnitt
steigt P

ZX-81 ALLES, was ein Computer braucht ... (2)

100

If you only want 100 bytes, it is very simple:

1. Remove the original 1- or 2K memory chip(s).
2. Solder a good 24-pin IC-socket in the place of IC1.
3. Fit a short wire at L23 (on the right side of IC4).
4. Take the 286Kb RAM chip and bend up pins 1, 2, 22, 23, 24, (no connection to socket).
5. Put the RAM (62256, 62559 or 62256 .g.p.) into the socket.
6. Connect pin 16A10 to ground (near 14 of IC2).

- 8 Connect pin 22 to ground.
- 9 Connect pin 23 (A11) to A11, that is the mode of D3 on the Z801 PCB.
- 10 Connect pin 26 (A13) to A13, that is the mode of D3 on the Z801 PCB.
- 11 That's all.

Full 12K-FAM from 19K to 48K.4

- 1 Remove the RAM from the socket and load pins 28 and 29 up.
- 2 Put the E₈₀₁ into the socket.
- 3 Connect pin 28 to +5 volts.
- 4 Connect pin 20 to output of the decoder (see schematic, verify not on Internet).
- 5 Remove R2 and R28 from the E₈₀₁ PCB (RAMCS and ROMCS).
- 6 Remove the wire from pin 1 to ground and connect pin 1 (A14) to A14, that is the waste of D7 on the E₈₀₁ PCB.
- 7 Build a simple address decoder with 74LS138 and four permanent diodes. The function is as follows:
MRDQ, A14 and A15 are used to select four areas of 16K. The first area ROM is selected. The second and third area is the 16 - 48K RAM. The fourth area E₈₀₁ must be selected too, as the various output routine as the E₈₀₁ is working with M1 = 0 and A14 = 1 and A15 = 1. Those of the permanent diodes from OR-gate which pulls RAMCS to LOW whenever one output is LOW.
- 8 Connect the ROMCS output of the decoder to pin 28 of the E₈₀₁ ROM (ROMCS).
- 10 Connect A14, A15, MRDQ, 3 volts and +5 volts to the decoder.

Memory Back-up

1. Only effective on 32K - 40K area, as BIOS will delete the 14K - 32K area)
2. Replace the wire from RAM pin 39 to battery clade
3. 3.6 volts backup batteries was a 180G

And now good luck! (Peter the translator)

This article is a translation from German *IZ*, *TEAM-MAGAZIN*, the words in the brackets are not translated, but I hope everybody will understand.

ZXB1 - EVERYTHING a computer needs

DBEasy's EASY OUT CUSTOM

by Al Fung

Although I felt comfortable with the previous version of DBEasy (Wood and Wind Computing, RR) Box 91, Corvallis, OR 97331), my implementation of the "easy_out_menu()" procedure was to mimic the address label for printing due labels with lots of BOLD or italic output on different lines. In retrospect, I clearly did not have a full appreciation of the power of generating a window output using the relational capabilities of the Archive database program.

A few years ago when someone asked me if there was an easy to use program which could generate a simple, monthly invoice I thought DBEasy might be a good foundation for an alternative to accounting software. As the Pages would have it, in the few days that transpired between the original query and developing the prototype, I learned the road no longer started.

The experience was not a lost effort — at least, that's what I tell myself. After all, there were some programming routines which I "worked out" (namely, others have done the same elsewhere) that I would not have bothered to attempt otherwise. A "refined" version of that code is included in the following LISTING.

The standard DBEasy screen layout was used with the following sample labels and user input. Compare the final, generated output with the following records data.

Using : D:\VCM31.DBF	Order : Mutual
Date : 1/10/91	Keys : TWKA1001-5
ACCT NAME	Wayne's Auto
ADDRESS	84 Cherry South Road
more address	
city	San Diego
state	CA
zip	92179
description1	4 spate plugs
description2	5 qt. oil filter
date RECEIVED	
Monthly FEE	5 financed 1 5.12
Previous DR(s)	17.25 financed 2 6.45
	0 0

In the following procedure, the "payment due" date was automatically calculated to be the 28th day of the subsequent month that the invoice is generated, with February's date adjusted to the "28th" of the month. Also, an adjustment to the next year is made if the invoice is generated in December.

```
proc easy_out_mn
run /* run for invoicing */
let day_due=28
let month_due=rel(today()) to 28+1
let year_due=rel(today()) to 99
if month_due=12 let month_due=1 modif
if month_due=1 let year_due=year_due+1 modif
if month_due=2 let day_due=28 modif
print
```

The fonts defined are for a 9-pin, EPSON compatible printer. Of course, you will want to substitute the appropriate control codes for your printer. If you have a color printer, you can define the various colors as similar strings. And similarly, you can define actual typelists and scales, too.

```
run /* 10x40 printer control codes */
let bold=chr(27)+chr(77)+chr(90)
let bold_c(1)=chr(27)+chr(77)+chr(91)
let bold_c(2)=chr(27)+chr(77)+chr(92)
let bold_c(3)=chr(27)+chr(77)+chr(93)
let bold_c(4)=chr(27)+chr(77)+chr(94)
let bold_c(5)=chr(27)+chr(77)+chr(95)
```

If you are a window, you will need to calculate the size. The "rate" (6.67%) is New Mexico's previous rate in effect when this procedure was written.

```
run /* set rate % */
let rate=6.6675
let inv(1)=rel(mo_1+rel_1+rel_2)+rel_3
let inv(2)=rel(mo_1+rel_1+rel_2)+rel(1,2)
let total=rel(inv(1)+rel(inv(2)))
```

Of course, how your actual output looks depends on the information you want to include. Therefore, note how the printer's fonts are turned on and off.

```
run /* this is your header */
print
print tab 11,bold,"PLATYPUS Software"
print tab 26,bold_c(1),"914 Box Vista Circle SW"
print tab 30,"Albuquerque, NM 87105"
print tab 33,bold_c(2),"505 843-8414"
print bold_c(3)
run /* line spaces vary with your header */
run /* adjust accordingly if using letterhead */
print
run /* the following is account information */
print tab 10,"Account Number " "July 5, tab 40,
"Current Balance: $ "total
print
run /* parameters for due are modified above */
print tab 10,"Payment due by: "month_due," ",
day_due," "year_due,tab 40,
"Amount Enclosed: $ _____"
print: print
run /* account address not for window envelope */
print
let d1=rel_1, d2=rel_2, d3=rel_3 modif
print tab 11,d1
print tab 11,d2,3
d1+rel_3+rel_4, d2+rel_5 modif print tab
11,d1,3," "d2,3," "d3,3 print: print
print "-----" Please return above
perform with your payment )-----"
run /* customer returns due part */
print: print: print
print tab 10," Account Number " "July 5, tab 30,
```



```

"Billing date: ",today(1) to 6, today(2) to 10)
print
print tab 10,"Your check number _____",
      tab 50," Payment due: ", month_dec," ",
      day_dec," ", year_dec
print
print: print: print
print tab 10,"$
print tab 10,"$
d:=4.5<="" print tab 10,"$ endif
print tab 10,"$ ", "nd," "x7,"
print: print

```

The following method for signing the two-place decimal output in columns may not be the most compact or elegant sequence, but, it works. Since the working example does not utilize numerical fields "x1," and "x5," you should note that there is no corresponding "AddOn5" or "AddOn6" value.

```

rem /* to ensure two-place decimal output ... */
let Input1=tab(1,"$2)
let Input2=tab(2,"$2)
let Input3=tab(3,"$2)
let Input4=tab(4,"$2)
let Input5=tab(5,"$2)
let Lx1=len(Input1) let Lx2=len(Input2)
let Lx3=len(Input3)
let Lx4=len(Input4) let Lx5=len(Input5)
let LxT=len(Input5)
let AddOn1=Lx3-Lx1
let AddOn2=Lx3-Lx2
let AddOn4=Lx3-Lx4
let AddOn5=Lx3-Lx5
let AddOnT=Lx3-LxT
let Blank1="" rem 4 spaces
if AddOn1<0 let AddOn1="" endif
if AddOn2<0 let AddOn2="" endif
if AddOn4<0 let AddOn4="" endif
if AddOn5<0 let AddOn5="" endif
if AddOnT<0 let AddOnT="" endif
if AddOn1=0 let AddOn1=Blank1 in AddOn1 end
if AddOn2=0 let AddOn2=Blank1 in AddOn2 end
if AddOn4=0 let AddOn4=Blank1 in AddOn4 end
if AddOn5=0 let AddOn5=Blank1 in AddOn5 end
if AddOnT=0 let AddOnT=Blank1 in AddOnT end
print tab 44," Previous balance: $ ",
      AddOn15,Input5
print
print tab 10,"> ",x1,"$, tab 45," $ ", AddOn45,Input5
print tab 10,"> ",x5,"$, tab 65," $ ", AddOn55,Input5
print
print tab 44," Monthly service fee: $ ",
      AddOn15,Input5
print
print tab 54," Sales tax: $ ", AddOn15,Input5
print tab 65," _____"
print tab 44," Current balance DUE: $ ",x5
print: print: print: print

```

If you are re-writing an invoice similar to the one, you will probably want to "and" the invoice by repeating the information contained in your header. In the example, the information is put in a single line:

```

print tab 10,"Total$, "Thank you for your patronage",
      nd, off
print: print: print: print: print:
print: print
print bold$," PLATYPUS Software",bold, off,
      " 914 Rio Vista Cir SW, Albuquerque, NM
      87105",nd$,"(505) 843-8414",nd, off
print: print: rem formatted
endif

```

Although the "invoice" example given is not a standard procedure, it can be edited exclusive of DIBasy, SAVEd, and then MERGEd with the main program. While you may not have the need to generate an "invoice" from within DIBasy, I hope the preceding gives you a good idea about how flexible both DIBasy and the Author programming language can be.

The sample record has "PLATYPUS Software" scanning speech plugs and oil to "Wayne's Auto" account. Obviously, the appropriate data will be generated by your real world situation.

HAPPY TRAILS,
AND COMPUTING, TO YOU.

PLATYPUS Software
914 Rio Vista Circle SW
Albuquerque, NM 87105
505 843-8414

Account Number: TrWA1801-5 Current balance: \$ 13.83
Payment due by: 4/30/94 Amount Due/Total: \$ _____

Wayne's Auto
84 Chantry Smith Road
Pie Town, NM 87109

----- [Please return above portion with your payment] -----

Account Number: TrWA1801-5 Billing date: 4/15/94
Your check number: _____ Payment due: 4/30/94

Wayne's Auto
84 Chantry Smith Road
Pie Town, NM 87109

Previous balance	\$	12.33
> 6 spark plugs	\$	5.68
> 5 qt. oil 20wt	\$	6.43
Monthly service fee	\$	3.00
Sales tax	\$	1.17

Current balance DUE: \$ 15.61

Thank you for your patronage

PLATYPUS Software 914 Rio Vista Cir SW,
Albuquerque, NM 87105 505 843-8414

WINDOWS BY SHADE · PART 4

Continued from the Autumn 88 — Vol 5, No 3

Third is the data entry block which in the compiled machine code part of the data entry routine from address 6880 to 6204. This is the **TMXPC** BASIC part of the data entry routine that was correctly compiled by the **TMXPC** compiler and ran properly. This compiled machine code part of the data entry routine will be referred to from this point on as "Part #1 of the data entry routine". The remainder of the data entry routine, the **TMXPC** & **LKDOS** extended BASIC window routines are in the core **ROM** routines from program lines 9880 to 9926. The **TMXPC** & **LKDOS** extended BASIC part of the data entry routine will be referred to as "Part #2 of the data entry routine". The complete data entry routine does use special operations which make it better than just a straight **INPUT** or **INKEY\$** data entry operation. First it provides line current for data entry it provides an "L", "C" & "N" cursor. Second it provides for three data entry modes.

These data entry modes are <1> **ALL CHARACTERS** mode. In this mode all the alpha-numeric characters, punctuation and symbols can be entered. Both upper and lower case letter characters can be entered by shifting the cursor with the standard **CS** & **S** keys, from **L** to **C** and vice versa. <2> **CAPITALS** mode. In this mode all the upper case letters, numbers, punctuation and symbols can be entered with the exception of lower case letter characters which are locked out. The **CY** cursor will not shift to an **L** cursor in **CAPITALS** mode. <3> **NUMBERS** or **NUM** mode. In this mode only numbers can be entered. This mode uses the **>** cursor. This data entry mode showcases the need of having a question only character routine in the core routines. This data entry mode makes entering dates / times / amounts simple and foolproof. These extended mode is locked out so these characters which are usually entered from extended mode are entered using the **SE** key plus the character key related to that extended mode character. Pressing the **SE** + **Y** keys enters "T", **SE** + **U** keys enters **J**, **SE** + **F** keys enters "C", **SE** + **G** keys, enters "Y" & **SE** + **I** keys enters "Q".

Fourth, the arrow keys and all non-character (non-numeric or functions) entries are locked out.

Fifth the data entry line length is preset by the **MEMORIZATION** program and the data entry routine prevents entry of characters beyond the preset line length limit. Such the data entered into a line is **POKED** into a 64 character storage buffer. This 64 character storage buffer holds one full screen row / line of 64 characters. When data entry on a line is completed the data is **PUSHED** from the 64 character storage buffer and placed into a **STRING\$** variable by a **CON\$** from the **MEMORIZATION** program to a core routine. Then the 64 character storage buffer is cleared with the fourth machine code routine, the 64 character storage buffer clearing routine. The 64 character storage buffer clearing routine is initiated

from the **MEMORIZATION** program. The data entry routine has many other features, but those noted above should make my point that this is a worth while project which should be completed.

Sixth is the 64 character storage buffer clearing routine from address 6204 to 6248. This routine **CLEARs** the 64 character storage buffer used to temporarily store a line of 64 characters by part #1 of the data entry routine.

Fifth is the screen **PRINTing** parameters storage buffer from 6249 to 6283. This buffer stores <1> Last character entered, <2> Current preset column position, <3> Data entry mode, <4> Window or row, <5> Start / base preset column position, <6> Start / base preset row position, <7> Character per line limit, <8> Ink color for **PLAT** function, <9> Line numbers to return to <10> **LKDOS** **DRAW** function character area width, <11> Current status of C or L cursor.

Sixth is a one number storage buffer at 6289 that holds the current number of characters stored in the 64 character storage buffer.

Seventh is the 64 character storage buffer from address 6289 to 6344. Part #1 of the data entry routine temporarily stores one line of up to 64 characters in this buffer.

Eighth is the data storage area from 6346 to 6335. This area regularly stores four named **TMXPC** & **LKDOS** fonts. The standard complement of fonts starts with <1> **LKDOS** 43 (approximate) character per line proportional font first starting at 6346 <2> **LKDOS** 43 character per line first starting at 6328 <3> **Times** bold 32 character per line first starting at 6398 <4> **TMXPC** graphics 32 graphics (pixels) per line first starting at 6467.

There is a 5th font which is an **LKDOS** 64 character per line font which is **LOADED** into the **LKDOS** cartridge.

As noted above there are two versions of my **LKDOS** extended BASIC data entry demo programs. The simplest is the pseudo three window demo. The pseudo three window demo uses all the same **TMXPC** & **LKDOS** operations as the true three window demo but uses only one **LKDOS** extended BASIC window. The true three window demo is identical to the pseudo three window demo except it uses all three **LKDOS** extended BASIC windows.

The only noticeable difference the user would detect between the two versions of the data entry demos is that the true three window demo has a slower typing speed than the pseudo three window demo. This is due to the failure of the **MEMORIZATION** compiler to produce runnable machine code from those program lines, of the original one part data entry routines, that contained **LKDOS** extended BASIC window operations. My original plan was to write the data entry routines in **TMXPC** & **LKDOS** extended BASIC, test and modify them until I was satisfied with their performance and then compile the data entry routines

to their running machine code with the Teacoust compiler. That is what I did, and after several weeks testing and modifying the data entry routines, and when I was satisfied with their performance I compiled them with the Teacoust compiler. When I went to run the compiled machine code routines I found that those operations containing LKDOS extended BASIC window functions had not been properly compiled by the Teacoust compiler and would not run.

Directly below is a list of the LKDOS extended BASIC window operations that the Teacoust compiler did not compile correctly, and which would not run at all.

```
<D> PRINT #A DRAW "D",X,Y — (D)=Character width to be used — MIN ( MAX,2)
<D> PRINT #5,CHR$ B, or PRINT #A,CHR$ B, or PRINT #7,CHR$ B,
```

```
<D> PRINT #5, "" or PRINT #5," " or PRINT #A, ""
or PRINT #A," " or PRINT #7, "" or PRINT #7," "
```

```
<D> PRINT #5,"" or PRINT #A,"" or PRINT #7,""
```

There are only three types of LKDOS extended BASIC window routines used by the data entry routines. These are:

```
<D> PRINT #A DRAW "D",X,Y <D> PRINT #A,CHR$ B, <D> PRINT #A,""
```

Robert Shady
3110 N Broad St
Philadelphia PA 19140-0208

Demo programs excerpted Times 4, LKDOS extended BASIC part #2 data entry routine

```
9000 RANDOMIZE USR 80
9001 LET SO=PEEK 62100: LET CO=PEEK
62070: LET CU=PEEK 62080: LE T CS=PEEK
61070: LET A=PEEK 62070: LET B=PEEK
62100
9001 IF CO=1 THEN PRINT#4: POKE
10000,A: PRINT #4: POKE 10000, B: GO TO
9004
9002 IF CO=2 THEN PRINT #4: POKE
10020,A: PRINT #4: POKE 10020, B: GO TO
9004
9003 IF CO=3 THEN PRINT #4: POKE
10040,A: PRINT #4: POKE 10040, B:
9004 IF CO=1 THEN GO TO 9010
9005 LET #1:PEEK 62080: LET B=PEEK
62080: PRINT OUT #A,B: LET CO=PEEK
62100
9006 PRINT #4: DRAW "D",X,Y:
9007 IF CO=2 THEN GO TO 9002
9008 IF CO=3 THEN LET B=61070: GO TO
9000
9009 IF CO=4 THEN -GO TO 9004
9001 IF CO=5 THEN LET B=60000: GO TO
90
9002 LET B=PEEK 62100
9003 IF CO=1 THEN PRINT #5:CHR$ B: GO
TO 9017
9004 IF CO=2 THEN PRINT #6:CHR$ B: GO
TO 9020
9005 IF CO=3 THEN PRINT #7:CHR$ B: GO
TO 9023
9006 IF CO=2 THEN GO TO 9010
9007 IF CO=3 THEN GO TO 9012
```

```
9008 IF CO=0 THEN PRINT #6: "A1 : GO TO
9020
9009 IF CO=1 THEN PRINT #6:"_": GO TO
9020
9010 IF CO=0 THEN PRINT #6:"A": GO TO
9020
9011 IF CO=1 THEN PRINT #6:"B": GO TO
9020
9012 IF CO=0 THEN PRINT #7:"": GO TO
9020
9013 IF CO=1 THEN PRINT #7:"_": GO TO
9020
9014 IF CO=1 THEN GO TO 9017
9015 IF CO=2 THEN GO TO 9020
9016 IF CO=3 THEN -GO TO 9020
9017 IF CO=0 AND CO=0 THEN PRINT #A: GO
TO 9000
9018 IF CO=0 AND CO=1 OR CO=1 THEN PRINT
#5:0-': GO TO 9020
9019 IF CO=2 THEN PRINT #5:"_": GO TO
9020
9020 IF CO=0 AND CO=0 THEN PRINT #6: GO
GO TO 9020
9021 IF CO=0 AND CO=1 OR CO=1 THEN PRINT
#6:"_": GO TO 9020
9022 IF CO=2 THEN PRINT #6:"": GO TO
9020
9023 IF CO=0 AND CO=0 THEN PRINT #7: "A1
: GO TO 9020
9024 IF CO=0 AND CO=1 OR CO=1 THEN PRINT
#7:"_": GO TO 9020
9025 IF CO=2 THEN PRINT #7:""
9026 LET B=62100: GO TO 9000
```

ERRATA

Part of the program listing of "Improving a Sector Copying Program" in the last issue - Vol. 6 No. 1 was inadvertently left out. Here is the missing part:

```
480-5 LET Density=3 message="HD1 4" SCOPY
480-5 LET Density=9 message="HD1.2M" ATTR$=
PRINT#, "not yet supported" PAUSE 50
```

```
ATTR$,10 PRINT#Status MAIN
480-6 GO TO 1240
490-4 Print
480 END SELECT
480 END DEFine MAIN
480
480 DEFine PROCStatus GO
500 OPEN#1,"p04a04a","w"
```

ZGR QLine Alert

```

510 OPEN#4, "p\AAMA", "w"
520 END DEFine ID
530
540 DEFine PROCedure ID
550 OPEN#3, "p\AAMA", "w"
560 OPEN#4, "p\AAMA", "w"
570 END DEFine ID
580
590 DEFine PROCedure End
600 OPEN#3, "p\AAMA", "w"
610 OPEN#4, "p\AAMA", "w"
620 END DEFine End
630
640 DEFine PROCedure SCOPY
650 CLS:Z PAPER:0 INK:0
660 AT 2,4: PRINT " ", INK:0 PRINT Front: INK:0
670 AT 2,10: PRINT "SCOPY", INK:0 PRINT "Yes",
    INK:0 PRINT message: INPUT "p":
680 Add=
690 AT 2,4: PRINT Back: INK:0
700 AT 4,4: PRINT " ", INK:0 PRINT Front: INK:0
710 AT 4,14: PRINT " ", INK:0 PRINT message:
    INPUT "p":
720 IF Yes THEN REPEAT 200,20: GO TO 750
730 Add=4
740 AT 4,4: PRINT Back: INK:0
750 IF Density=1 THEN DO
760 IF Density=2 THEN DO
770 IF Density=3 THEN DO
780 track = 0
790 side = 2
800 FOR track = 0 TO track - 1
810 x = 6736 * track
820 print:
830 putback:
840 MOVE(XWR0,0),X0,X4,130: MOVE(X0,1,1
    INK:0,7
850 AT(12,10): PRINT(0,10)*track+1: GOTO 120,"w",
    INK:0,1: PRINT(0,"COPIED"
860 NEXT track
870 END FOR track
880 CLS:END
890 CLOSE#4
900 PAPER:0 INK:0 CLS: PAPER:0: CLS:0
910 REPEAT 200,20: PAUSE 14: REPEAT 600,14: PAUSE 10
    REPEAT 200,20
920 INK:0 PRINT,
    "Data in p\Back", CLS:0 TO Data in
    p\Back", "p\A", " - PRESS <ANY KEY> to
    Continue -"
    PAUSE: CLS:0 MAIN
930 END DEFine SCOPY
940
950 DEFine PROCedure print:
960 GET #In+1,0:
    GET #In+4,0
    GET #In+7,0
    GET #In+1,0
    GET #In+1,0
    GET #In+1,0
    GET #In+1,0
970 IF Density=1 OR Density=2 THEN
    GET #In+1+0,0
    GET #In+4+0,0
    GET #In+7+0,0
    GET #In+2+0,0
    GET #In+3+0,0
    GET #In+6+0,0
    GET #In+3+0,0
    GET #In+6+0,0
    GET #In+9+0,0
    GET #In+9+0,0
980 REMark IF Density=3 THEN REMark
990 IF side = 2 THEN
1000 GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
    GET #In+10,0
1010 IF Density=1 OR Density=2 THEN GET
    #In+1+0,0
    PUT #In+1+0,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
    PUT #In+1,0
1020 REMark IF Density=3 THEN REMark
1030 END IF

```

QL Hacker's Journal

by Tim Swenson

The QL Hacker's Journal (QHJ) is published by Tim Swenson as a service to the QL Community. The QHJ is freely distributable. Past issues are available on disk, via e-mail, or via the Arise-FTP server, please e-mail S. The QHJ is always on the look out for article submissions.

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Editors' Forum

As time goes by I'm finding myself doing less and less programming. My recent foray into distributing QL and Z88 hardware has kept me busy collecting QL hardware. Now I will have the pleasure of trying some of the software out, which always takes some time. I'm still working on getting QFAX going (after having it for almost a year). For some reason QFAX did not talk well to my modem. I've been thinking to sit down and figure out the problem, but it has become one of those get-around-to-it's.

The only programming I have been doing in some work in Perl. Perl is great for some Sys Admin work in Unix and I've written a few CGI-EM scripts in Perl. I'm hoping to do Perl work full time.

A part of Perl is the QL, may happen and I hope it does. Perl is a great language for quick programs. It's got the speed of development of SuperBASIC but with the power of C, awk, and SED.

In my browsing of the Web I've run across a web site dedicated to programming. Besides carrying information about a number of different languages, they also have a section on "classic" papers. I downloaded the following papers.

■ What is "Object-Oriented-Programming"?

by Ryszard Szpankowski

Recommended C Style and Coding Standards

■ How to Read Code or Inventing The Wheel Only Once

by Henry Spencer

The papers are stored in Adobe Acrobat (.pdf) format and need an Adobe viewer to view or print out.

I started reading Ryszard's paper on OOP but have yet to sit down and go through it all. It discusses OOP by starting with procedural programming, then discusses data hiding, data abstractions, and then moves on to OOP. It looks like this may actually be the article I've been looking for, that really discusses OOP in relation to procedural programming.

I've always found other OOP articles that start off discussing OOP by defining the OOP terms but not relating them back to procedural programming. I need to see OOP in relation to something that I already know.

If you want to visit the site, it's at <http://www.com.com/swenson/strangestrange.com/strange/>

Using an older form of browsing, I was looking through my local library and ran across a book by P. J. Flanger. Mr. Flanger used to own Winchester, a C compiler vendor, and has contributed to "Computer Language" and "C Users Journal" magazines. The book is called "Programming on Purpose II" and is a collection of "Programming on Purpose" columns he wrote for "Computer Language". The topics all deal with software technology, while the other two books deal with software design and software people.

The articles have some good things to say. They cover a wide variety of topics and are good idea generators. Some of the better articles covered technical writing, maintaining code, test scripts, and even interface issues. I'm hoping that the library has the other two books as I am sure that they are worth the read.

I'd like to end with one final note, when I started the QHJ I had hoped that most of the articles would come from you, the readers, but I was not so lucky. As it is taking me longer and longer to produce each issue, I would like to make a request to some of you might take pay of me as my plight and give a few words for the magazines.

Some Notes On Archive by Bill Cable

(This came to me in a letter and not an article - ED)

I am heavy into really relational database now. The place I work uses Oracle. They have tables in their database with 30 million records or more so they like to call them. I finally got to compare ARCHIVE (a quasi relational database) with the real thing. One thing that is striking is how the syntax of ARCHIVE like insert, select, order and so forth are actually the same terms used in SQL compliant relational databases. As far as I can tell anything you can do in a relational database you can also do in ARCHIVE. In a relational database it can often be done directly while in ARCHIVE you will have to write procedures to do it and often a simple SQL statement can require a lot of procedures to duplicate SQL, taking ARCHIVE and the language you can do about anything you want. It may take too long to be practical but you can still do it.

SQL is only a language used to query a relational database. ARCHIVE is a relational database and most resembles dBase (dBASE). When doing queries, both ARCHIVE and dBase suffer when compared to SQL - ED.

In your last QHJ you discuss ARCHIVE a little bit. It is a very nice language to use and it is very light (not many bugs). As you mention the .pag files are text files but the information seen in the ARCHIVE editor are not there. There is no easy way to get back a listing. In ARCHIVE you can list a program using the LIST command. It normally lists to the printer with the calculations shown. If

you want to send the listing to a file use the `SPRINT` command which will redirect `LIST`, `LPRINT`, and such to a file or to the screen. That way you can use `LPRINT` and control output from `LPRINT` to screen, printer, or file.

So if you have some procedures listed in `ARCHIVE`, list `<archive>` will send selected listing to the printer.

```
spoon "send_page_bot"<archive>
list<archive>
spoon<archive>
```

will send selected listing to `send_page_bot`. Be sure to always turn `spoon` off or the file is still open and you can't access it if you haven't quit `ARCHIVE` yet.

`Spoonoff` always sets output back to the printer. You can `spoonoff` even if you haven't done `spoon` without an error. A `spoon screen<archive>` will send output to the screen instead.

Unfortunately there is no way for `ARCHIVE` to read text files as when you might want to paste text and turn it into a database. If you, of course, read text files in the standard report format.

You are right in that `ARCHIVE` can load selected `_peg` files. One of the more powerful features of `ARCHIVE` is that you can have an `ARCHIVE` procedure write a procedure to disk and then merge it and use it. That is one way I have my `ARCHIVE` programs do things you can't simply provide.

Passing Parameters

When I was learning Pascal, one of the hurdles I had to get over was the concept of parameter passing. Parameters are used when passing data in procedures and functions. Parameter usage is two types, "call by value" and "call by reference." When you pass operation to a procedure, you are "calling" that procedure.

When using procedures and functions, you need to know if you are calling by reference or value. Each has different effects on your program and not knowing the effects can cause what is called "side effects."

Call by Value - This means that the value of the parameter is passed to the procedure. The procedure only gets a copy of the data and what ever it does to the data, it does not affect the original variable. C defaults to call by value. SuperBASIC defaults to call by value only when you use numbers.

Call by Reference - This means that the variable itself (or a reference to it) is passed to the procedure. If the procedure changes the value of the variable, it is changed through out the whole program. C uses pointers to get procedures to do call by reference. SuperBASIC defaults to call by reference when using variables.

When programming in C, you know when you are calling by value or reference. It is an important part of the language and taught early when learning C. In SuperBASIC it is not very apparent and not really discussed. In fact, I've been programming in SuperBASIC for over 10 years now and I did not know if I used call by reference or value. So I decided to play with SuperBASIC, read the manual, and figure this out.

Below is a simple procedure that takes a variable as a

parameter and increases it by one. We'll call the procedure `inc` for increment.

```
10 DEFINT PROCEDURE inc (x)
20 LET x = x + 1
30 PRINT x
40 END DEFINT
```

When you call the procedure with a literal:

```
100 inc 10 or 100 inc 100
```

SuperBASIC can only use call by value, since there is no variable to use in a call by reference.

When you call it with a variable

```
100 inc var
```

SuperBASIC uses call by reference. This means that when you call the procedure, the value of `VAR` will increase by 1. In a way the procedure is working like a function called like this:

```
100 var = inc (var)
```

Of course, when you use a function you must use a `RETURN` statement.

If you do not know that SuperBASIC uses call by reference in this instance, then the value of `VAR` will increase when you do not want it to. This is often called a "side effect" of a procedure.

If you want to call the procedure with a call by value, you must tell SuperBASIC this. You can do this by putting parentheses around your variable, like this:

```
100 inc (var)
```

Now the procedure will get its own copy of `VAR` to play with and the real variable `VAR` will not change.

The same works with functions. Since functions need parentheses around variables used in a call, a single set of parentheses is used for a call by Reference and a double set of parentheses is used for a call by Value.

Recent Firmware - CLIPS

CLIPS is an expert system developed by HALL in 1986. It has been ported to the QL by Simione Mariani of Italy. CLIPS is an interpreted language like BASIC or Lisp. Like Lisp or Prolog, CLIPS is designed for use in artificial intelligence.

CLIPS has three ways to represent knowledge: Rules, Generic Functions, and Object Oriented Programming (OOP). CLIPS supports the 3 features of OOP: classes, message handling, abstraction, inheritance, and polymorphism. Or so the manual says.

When I read through the first part of the manual, it introduced CLIPS by talking about facts and rules. Facts are just "words" you tell CLIPS and rules are actions it takes based on the facts. Facts are what ever you define them to be. Here are some examples:

```
(assert (bob))
(assert (animal-in (bob)))
(assert (married-in (bob)))
```

Each fact is stored as a literal in CLIPS and no check is done on it. Rules are really IF THEN statements. Rules say that if a given fact exists, then perform some function. Here is an example:

```
(define forward
  (animal-in (bob))
```

```
(assert (equal-to 0) 0))
```

If the first (assert-to-fail) clause has been asserted, then the first (assert-to-succeed) will be asserted. You can have multiple facts in a rule, the same as using AND in an IF statement, by listing the facts before the :- The same goes for having multiple actions in the rule, by listing them before ending the rule with a closing ;)

CLIPS terminology is a bit different and takes some getting used to. CLIPS uses the term field to define a single element in a list. In (assert (fact0)), fact0 is a field. In (assert (fact-dave)), both fact and dave are fields. CLIPS supports the following types of fields: float, integer, symbol, string, external address, list address, instance address, and instance name.

The manual that comes with CLIPS is really a tutorial. The reference manual is not passed to me. As someone new to CLIPS it is probably better to have a tutorial instead of the reference manual, it's makes it easier to learn the language.

I have not gone too far into the manual, nor do I know how far I will go. I don't see CLIPS used for much everyday computing on the QL, but it does have the potential for being a QL-specific tool for the non-everyday areas of computer science.

To get an idea of what one can do with CLIPS, the Proceeding from the first three CLIPS Users Conferences are included at the back of the manual. Some of the areas covered are "Three CLIPS-based Expert Systems for Solving Engineering Problems", "Using CLIPS as a Distributed System - the Network Control Center (NCC) Expert System", "Space Shuttle Systems Monitoring Real-Time Telemetry Processing Using CLIPS", "A CLIPS Expert System for Monitoring AIDS", "MCM - A Meteorological Data-Checking Expert System in CLIPS", and "Using a CLIPS Expert System to Automatically Manage TCMF Networks". It looks like CLIPS can be used here variety of applications.

CLIPS is a 386K executable and requires an expanded QL. I have a Gold Card on my QL, and it works fine. I have not tested it on a 640K QL. CLIPS is available via QSD Freedom (same address as the QLIT). Send a disk and return postage and it is yours. The FTP site says to use wget, it seems to be down, so Eudora did not get it there. If a request is made, it can be put on my web server in the QL subdirectory.

House Of Coding Style

I was recently doing some COI-BIN programming in Perl. Since I was new to COI-BIN programming, I did what every other programmer does when he is new to something, he borrows somebody else's code to see how it is done. I borrowed some Perl COI-BIN code from our local COI-BIN expert at work.

When writing my code I tried to stay close to the style that he was writing in. I did notice that he has a style that is very different than mine. He likes to put very long sections of code in a subroutine. Where as I do not like to break up these sections in to subroutines. My code looks kind of like this:

```
IF ____ THEN ____
-----
IF ____ THEN ____
-----
ELSE
-----
END IF
-----
Where as his code looks like this
-----
IF ____ THEN
Call Subroutine1
ELSE
Call Subroutine2
END IF
-----
```

where the code in the IF-THEN-ELSE constructs was moved to two subroutines.

Now none of these subroutines were going to be called from more than one place in the code. I prefer to write subroutines only when they are writing the same code in different part of the program. To me subroutines are designed to save the amount of code you are writing.

My friends idea of subroutines is to make the main part of your code shorter and easier to read. This is fine if the sections of code that you are going to move into a subroutine are fairly long.

I prefer to not use a subroutine unless I need to write the same code many places. For me the subroutines break the flow of the structure of the program. I view it sort of like passing a tree. Just as with a left- or right-handed rule, you keep moving down a tree until you come to a leaf node and then you back up and take the next branch, coding flows out like a tree structure going down all of the IF-THEN statements until an end is reached and then brought back up the tree with and END IF statement. One never passes a tree by undervalued levels of depth at a time.

I wanted to bring this up because it shows two distinct coding styles and why they are done that way, and maybe it will get you thinking about your personal coding style and how you feel about it versus others.

Recent Freeware - REXX

The REXX language was derived from a batch language on the IBM System/370 called REXX-2. It has since become a standard language for OS/2 with implementations on other platforms, including the Amiga. A version of REXX has been posted to the QL.

REXX is a procedural language like BASIC, C, Pascal, etc and its code has the same look as these languages. REXX seems to have the same concepts for writing a program, such as conditional statements, looping statements, input, output, etc., as the above languages, it just does it a little differently.

A beginning REXX program is like this

```
pull a
b=a%a
c=1/b
d=1/c
e=2**((a-1)
```

say 'Results are' a b c d

Print is equivalent to INPUT and say is equivalent to PRINT. The assignment statements are the same format as BASIC.

REXX supports stringed data in the same way that Perl does. A variable can hold either string or a number. The following program demonstrates how this can work.

```
a = 'A String'
b = 123
c = '456'
d = a * (b/c)*3
say d
```

The results will be: "A String 39360". The function `|` concatenates the two strings, which is a number so it can be multiplied by three. Then it then added with a variable holding a string and a string constant to get the final result.

REXX has a variety of loops and conditional loops

Here are a few

```
do 10 (repeat 10 times)
  say 'hello'
end
do c=1 to 20 (FOR C = 1 TO 20)
  say c
end
do until var = 10
  —
end
do while until = 0
  —
end
```

As you can see, REXX is a fairly verbose language and is

fairly easy to read (unlike the terseness of C or FORTRAN). Most of the example programs are things that can be done in other languages, it's just a matter of figuring out how to do them in REXX.

The version of REXX for the QL is a 300K executable, so it will require an expanded machine. I don't know what the lower limits are to run REXX. I have tested it on a QL with a Gold Card and it runs just fine.

REXX is an interpretive language, like BASIC, but this implementation is not an interactive interpreter. If you execute REXX with no arguments, it will essentially do nothing. To run a REXX program, you have to execute REXX with the argument of the program you want to run. Of course, this means you need to have TRILL.

To run REXX with the example `natural_pos` program included, you would do this

```
exec run_pos, 'natural_pos'
```

That will execute REXX and load in the REXX program `natural_pos`.

The QL version of REXX comes with a single tutorial for beginners and a longer filler document that does into greater detail about REXX. Since REXX is popular for OS/2 and Amiga, there are a number of sources on the Internet.

There really is not much else to say about REXX. If you are looking for another language to play around with, here is a good one. If you are looking to learn REXX to use on other platforms, this version of REXX should do the job. At the very least it gives the QL programmer one more

TELECOMMUNICATION

by David Lawrence

We have completed work on breaking out LettCom MacCom into manageable pieces for the Times-Sunday Wall computer. In so doing, memory was freed for some additional features, and processing speed is enhanced.

We discuss these different items here, features gained and lost, a change in CODE for remote character input, and future prospects.

We break MacCom out into two versions, one with and without Dallas SmartWatch, four versions in all.

Features Gained and Lost

MacCom.BX does not use the clock and implements remote input, EDS mode. Additional features, beyond Larry's product, include `QUERYSHOW`, `BACKUP`, `USE`, `SETTIME`, `SWITCH MESSAGE BACK` (at Larry's suggestion), expanded `STATUS` list, on-line user's choice of four Message Boxes, and lots of `HELP` flags.

`QUERYSHOW` changes reporting mode from `STATUS` to `EDS`, while `LOADING` the optional `MESSAGEBOX` message box. `BACKUP` SAVES program and variables to the current disk and `LOADS`. `CURT` performs a LettCom NETW operation on the `RAMDISK`, replacing MacCom.BX with the `autorecover` file on channel 4. The last editor is an amendment to the remote mechanism: ability of the remote `RECE`. It is required by the half-duplexity of the remote.

The ability to switch to arbitrary MIDs is available only to the remote, since it accesses the system data. Users already have a choice of four main MIDs as well as many `HELP` files.

MacCom.BX does the same as MacCom.BX, with addition of access to the DALLAS SmartWatch. We get time on, time off, elapsed time, current time, expressed in the status reports and the changing of remote message output.

TERMCom.BX adds some features to Larry's product also, such as `QUERYSHOW`, `QUERYSHOW` Message Box, `BACKUP`, `CURT`, `USE`, `SETTIME` messages, `VIEW FILE`, and `LINE` options, provided to message only.

`QUERYSHOW` goes from `MESSAGE` mode to `Message` Mode, while `LOADING` the optional `MESSAGEBOX` Message Box. First, `QUERYSHOW` sets a C&T of the system data and then requires message data, by moving status messages to temporary `EDS` message data, listing up their former locations for new messages. Progress is monitored by handy `LISTS` and `SETP`s, before proceeding with a `CONTINUE`. You don't want to lose anybody's information now, do you? On the other hand, any message can be viewed and `STATUS` box, too. Arbitrary ASCII files also can be viewed in either 81 columns or 84 columns.

TERMac87 does the same as TERMac8X with the addition of ability to read the time stamps of messages plus some timing of its own.

Neither MacCen8X nor MacCen87 implements a garbage buffer. There are no automatic facilities either. Thus, "new" mode (good access) is a little bit limited. There is, of course, less FREE RAM in any of these versions of Larkin MacCen, due to the addition of so many features. And, lastly, display has been reduced from FULL to half in the remote messaging system. The loss of FULL display in trying to speed up Larkin MacCen is what makes the last advice mandatory. For, with Larry, what you see is what I get. But now, what you are is what you requested. If you want to see what I get, then you have to go to EDIT.

With both versions of TERMac, we lose EDIT mode and remote re-aging, thus losing up logging and command systems for accounts, etc. Bottom line, we have less FREE RAM than with Larry's product.

The two CHANGES in coding philosophy for remote messaging is one use of INPUT? for a message line, rather than as many to eight use of INKEY? for the same message line. Larry complimented us on the slow performance of the latter with FULL display, but Don

Wakeman's use of the less editor convinced us to go with the former and HALF display. I mean, INKEY? with FD is slow and gives immediate feedback on the integrity of the last character ENTERed. But INPUT? with HD is FAST and the integrity of ALL the lines ENTERed can be confirmed by more-EDIT, a more satisfactory solution all around, except in the case of sleepwalkers who don't care what our version of "remote message" looks like.

So now, message entry is FAST and ADVANTAGE, subject only to a very minor irregularity in word-wrap, which does not even show up in the received message.

Prospects

Our main interest in engineering is HODOLAND and simulation. We have developed our own simulation language (Systems-Oriented Language) and we got into messaging, only as a way of sending SOL over the phone. We have found, that phone connections are unreliable, even after performing a LOAD and a SAVE, at least they are under SOL 888. And, we are anxious to report on the results of our continued attempts to get-to SOL. Think we'll need to send graphics though. We'll let you know in the pages of UPDATE magazine.

DAISY BE GOOD -VII

by David Lanyon

Greetings, once again, to all us aficionados of the Times-Exeter Computer, model 2088. Let us proceed with our exposition of Bill Jones' GREAT software for Word Processing on the 2088, by performing a Larkin NEW operation on the Daisy issue disk #1 from UPDATE magazine. The LOADs the AUTOSTART program in and also begins executing the Daisy.88.

We are first presented with 888's titlecard, "DAISY / The TS-2088 Software System / For The / Larkin Disk System" in the form of a screen string or SCREEN Str. Press of) 2 i p y in succession, get us to where we want to start the dialogue, the function menu, by watching the pointer and its software.

This time, we select entry #6 on the menu. It is a short topic, called "Print Typing," and provides a means to use the 2088 in what Bill calls "Typewriter Mode."

All it does is PRINT all. What is all, you ask? All textual input from the keyboard goes first into all, before being broken up into intelligible pieces by the daisy software.

So, here is how we make use of all and Typewriter Mode: First, put something into all, by pressing #1 at the function menu, which is "Input-Edit". Then, select #1, "Daisy DE Manager", since we are discussing DAISY

here, and UDEdit is a whole other program (worthy of its own series of articles).

OK, now we are looking at the "output menu", which governs Input and Edit. Do you see #1 "Type?" and #5 "output summary?" Well, they are both talking about all, the typing buffer, and, as long as we don't touch

#3 or #4, working only with #1, we can build and add to all via keyboard input, limited only by available FREE RAM, as shown on the output menu. We can also PRINT the contents of all at any time, by going to the function menu (either BREAK, GOTO do or press 4 at the output menu).

We see, that pushing #3 DELETES whatever we are working on in all and the current all into the next available buffer, all or all, those being seven of such buffer. In any case, #3 or #5 results in an empty all, and we have to start all over, if we be only using #6 at the function menu to "Print Typing."

Next time, we get into #7 on the function menu, which invokes Automatic Printing, the main feature of Daisy.

Welcome back! We LOAD our RAMDISK with the daisy menu, using Richard Ward's "diskup" and drive #0



Then, we swap disks, putting in our prepped-up version of Daisy, and bring up the POWER MENU on drive #0 as the AUTOSTART file:

Well, let's see, entry #0 "Class" doesn't have any printers or spreadsheet facilities on board. Entry #2 "Input Edit" has no printer. Entry #1 "Text-Ming" has no way of inputting text. Entry #0 "Mind Adding" has everything except enough memory. We keep it around for use in bank II, after we develop a bank-switched version, using RAMDISK. We expect a lot of FREE RAM then it.

Now, we are talking about using Typewriter Mode, which doesn't sound too memory-intensive. So, we punch #4 on the POWER MENU on drive 0

The drive groans away, as "MindAdd.B" LOADs, and

our broadcast screen up, showing A.I.I.P.P.P. as keypresses, to activate the printer.

Up comes the FUNCTION MENU. We press #1 for Input-Edit. We press #1 again "Typing" and enter a test message into it. We set the INPUT mode for the EDIT mode by pressing Symbol-stuff and CAPS-stuff at the same time. Then, we are at the QUEuing MENU, and we punch #4 "quit" in order to bring up the FUNCTION MENU.

Here, we punch #0 "Print Typing", and the on-line printer springs to life, bubbling it in an overwhelming display of the convenience of Bill Jauer Typewriter Mode on our DAISY software. PERFECT!!

The Web

When it comes to the World Wide Web, it's easy to feel stupid, or just out of it. Every newspaper and magazine seems filled with know-it-all stories about the thing, and your computer-oddball friends can't wait to belittle you about it, pointing dramatically at excited parties to other techno issues like "home page" and "browser." They all make the Web seem better than sex, only more

huge machines at universities and corporations, store vast volumes of publicly available material. This includes text, pictures, sound and video that you may find useful, or just interesting, for business, education or entertainment. Using the Web, you can read, view or hear this stuff on your own PC, and point it out to ease it on your club the personal.

What's a "home page" or a "Web site"?

The Web is made up of millions of "pages," which are nothing more than small collections of text, pictures and graphics, and usually references to other pages containing related material. A "Web site" may contain many such pages. A "home page" is the page at each site which serves as a kind of book cover or table of contents to organize and introduce the other pages and site.

Even if a site consists of just a single page, it's still called a "home page." The coolest feature on any Web page is called a "link."

OK, I'm into. What's a "link"?

A link, also called a "hyperlink" or a special hot spot marked on the Web page. When you click on it with your mouse, you jump to an entirely different page - possibly on a whole different Web site in another state or country - which has material related to the link.

For instance, a Web page about rock 'n' roll might contain links that transport you to a separate web-page page devoted to individual performers. Links usually appear on a page in the form of underlined words or phrases in special colors, or small pictures or graphical icons. Each has invisibly embedded within it a "URL," or the unique address of another page.

A URL-what?

It's an acronym for "Uniform Resource Locator," or "universal resource locator." This is the complete address that directs your computer to the location on the Internet of any Web page.

These addresses look like this: "http://www.apple.com", which is the location of Apple Computer's home page. The "http" refers to a protocol, or communications method. The "www" stands for World Wide Web and "apple.com" refers to a big computer at Apple. The suffix ".com" means the site is commercial.



Paul Kish

or mysterious. But unlike sex, which is depicted and dissected in detail hourly on every TV channel, nobody seems to want to explain the Web in plain English.

Well, here, gentlemen of technology at your invitation for the stupider, and no question is too simple. So here are some essential answers to common questions about the Web. Cut this out and photocopy it so you, too, can get cool at parties.

Just what is the World Wide Web?

In 20 words or less?

It's the most famous and usable feature of the Internet, which is a worldwide network of computers you can tap into with your computer.

Why would I want to use the Web?

Because the Internet's computers, many of which are

Colleges use the suffix ".edu" government agencies use ".gov"

If a URL points to a page located outside the US, it also includes a two-letter country code, like ".uk" for the United Kingdom. The Web gives you access to sites in virtually every country in the world.

How do I "log into" the Web?

Some of the Internet large computers function as gateway to the Web. By connecting to one of these gateways temporarily, a computer user can "surf" the Web. If your computer is in a corporation, government agency or university, you can often reach one of these gateway machines by simply linking up to it via an internal computer network. (That is why students are over-represented among Internet users.)

Otherwise, you have to pay somebody with a gateway computer for access to the Web, and then dial into that gateway over the phone line using the modem on your computer.

These commercial "access providers" range from the big on-line services, like America Online, to smaller

national outfits like Netcom, to local firms. A typical fee is \$10 a month for 20 or more hours of access time, but rates and plans vary.

Do I need special software to dial into the Web?

Yes. You need one or more programs that actually make the phone connections, and you'll also need a program called a "Web browser" that can display the contents of the Web. There are many such browsers, but the best-known ones are the "Netscape Navigator."

In some cases, the dialing programs and browsers are combined into just one software. The latest versions of the America Online, CompuServe WinCIS, Hot Line, and Prodigy software perform both functions, as does a program called NetCrawler sold by Netcom. These programs also automatically sign you up for an account around the first time you use them.

So there are the basics. Practice in front of a mirror tonight, saying things like "Netscape" and ".URL" with the right air of tech-savvy arrogance, and ensure your friends tomorrow.

From the MMCC BBS 847 632-5558

WANTED: Fred Reimers, KJ70DC, is looking for an old article: March 1989 QEX — 432 MHz Amplifier.

Fred Reimers, KJ70DC, is looking for an old article: Dec. 88 issue of Ham Radio magazine: Article is 4-Digit DTMF decoder.

Contact Fred on 847-376-3540

FOR SALE: Icom TI21AT 2M HT. The unit also receives on 440 and will do full duplex, transmitting on 2M and receiving on 440. Gives 12V line HT will produce 6W, rather than the more common 5W.

Usual HT stuff, 99 memories, CTCSS encode/decode, DTMF encode/decode, automatic. The TI21AT is a nice compact unit, has a backlit display and keypad, 880mah battery (in very good shape).

Downsides? The TI21AT uses an SMA antenna connector, I have an adapter for BNC which it'll welds. There are a couple light scratches on the outside edges of the display. It also includes the filtered ear cord and an AA battery case. I have the original manual and box. Sells K4RQCA. \$175

FOR SALE: 2 months old Puma PT95 440 HT. The HT includes the 5W (500mah) battery and the PTT-80CA165 keypad with CTCSS encode/decode, DCS encode/decode, digital voice recorder all the bells and whistles. Memories are kept in beta, auto track, and can be named with 4 characters. DTMF PTT allows the digital coded squelch. (DCS) to function and results in excellent voice quality. The PTT80CA165 series is very well built (noise gate and open mtrng) and is water resistant. I have also had very good luck with the memory being selected recent. Radio is in excellent condition, only dinged in the SMA antenna connector (push on for mtrng) but I'm installing the BNC adapter. I have all the original accessories, box, and manual. Sells K4RQCA. \$275

FOR SALE: Radio Shack: Polaroida mobile phone 12V only, 100 ohms, in banks of 30 x 5. Cover 38-830, with the standard dials 38-30, 118-114, 440-512, 800, modified

to extend on to 950, you it receives cellular. 3 years old, works looks like new. Orig \$28.00, Ward \$73

Call Gary 847-338-1440 N08DL

WANTED: Looking for a Kenwood HT-1 Alkaline Battery Case for a TR-2500/3500

Call John Gilbert KA4MCC at 847-576-0213

FOR SALE: IC-37A 223 MHz 25 W Icom Mobile Newer used in comms or HF/BB operation. DCLAT 223 MHz Icom Portable w/PL \$100

IC37A12 2 meter Icom Portable w/PL, LCD display, 11 memory \$175 Both with Hi Capacity Battery Call Mark Berg 847-435-7880 or CNW8901@gmail.com

FOR SALE: Upgraded SB-210 New Heavy Duty Power Split Hypertol Power Transformer New 600 capacitors New Metering/Indicator board VHF power/100 suppression In-rush current limiting New heavy duty fan Soft-Starting The above upgrades were made in March 1995. Tubes are in excellent condition 2 spare tubes included 2 new condenser tubes included. These tubes have been tested but never put in service. \$800 Andy Mueller N9AB

Walt 323-6007 Home 368-4384

FOR SALE: Arpa 2000 w/10 8M Patter Agnes and loads of software... \$600 QRP Q-load new on box... \$150 TASCAs Poms 60 new... \$100 302-336-6693

FOR SALE: Epson 285 40M 110 147 color ready NEC 3180 Printer dot matrix printer & lots of software 813-477-0034 \$250 C800

FOR SALE: Memotech color classic 64M RAM 80M HD 14.4 FAX MODEM \$600 CNO 147315-934-8045

FOR SALE: Swept 100 MHz up down 3-pk \$25 308-894-2715

FOR SALE: Intel P-133 6MHz computer brand new 1 yr parts & labor 16MB EDO RAM 40MB 40 second card 1.2 GB HD, 120 minute 28 8 inch/100 Windows 95 CD games pack. Subo 308-346-4472

FOR SALE NEC multiSync 2A 13" color video 98000000
Ext. cond. — \$150 OBO. Date: 708-138-1574
FOR SALE Internet mail Box 1.0 for Windows & Windows
95 never used. \$45 708-694-3401

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For Above Items Use Reference # BWT1292

CNSN 3 Last Updated: April 25, 1996

- 1 TS 1000 w/ Flamingo rubber keyboard overlay, modified condition. \$25 (Add \$5 for 1000 ms. power supply)
- 1 Migration/Book Pack 3 Books/21 Maps \$100 pp
- 1 B.C. Key Keyboard mounted on 7" x 14" B.C. Key machine. TS 1000 modified made. Added features: AC & DC power switch, AC & DC fan holders, reset switch, video INVERTER, AC outlets for power pack/TV monitors, MDV optic protection, DC voltmeter & ammeter. Panel is scratched some, but good for peripheral experimentation. \$60

For Above Items Please Use Reference # VYB1291

- 1 TS2048 Computer - New - Never used - Complete \$35
- 1 TS 2048 BSC Monitor adapter w/related \$10
- 4 TS 1000 B/W DoubleGraphics Refrac-Bottle 9942 Superpage \$12 for \$12
- 1 AAM Printer Driver Software For 2048 And AAM \$5
- 2 TS 1000 Computers In Original Boxes - Never Used. \$28 ea.

For Above Items Please Use Reference # FUR1290

- 1 Miracle Computer LP \$40 pp
- 1 Dual 5 1/2 Drive NeoCable/PC \$100 pp

For Above Items Please Use Reference # SAU1293

Another Great Package Day!

Here is your chance to get a faster QL in great shape, with power supply, manual and original software, 8 black MDV carts and a box that holds 12 cartridges. You will also get a MAP 12" rubber composite monitor and all cables needed to hook it up. To round out the package, there are 3 books and several acres of QL programs to go along.

All Of This For Only \$500!!

Please add \$15 for shipping within the 48 contiguous states (add more! This one will sell fast! A great starter or back up package for anyone.)

Use Reference # JCU1295

NOTE: All of the above include shipping unless noted as sold alone.
Please allow 3-4 weeks delivery on these items. Order will be shipped direct to the buyer.

CNSN 5 Last Updated: May 12, 1996

Here Are A Few Great Items For You Collectors!

- 1 T8400 H&C RAM, Internal, pin, MEMOT adapter \$25
- 1 Memotech 945 \$29.95
- 1 Digital dual disk drive w pin/external drives drive \$200
- 1 2 1/2" (Amec) (K&C) w/Amec Controller interface with/with \$68.00
- 1 DOS on disk for the T8400. This requires the MEMOT adapter.
- 1 PROFILE on disk, 4 disks with many programs \$225
- 1 T8200 Printer as original box \$28
- 1 Memotech Modulo \$28
- 1 Memotech on disk by P. Matheson \$28
- 1 Memotech Modulo \$28
- 1 Memotech H&C Interface. Never used schools below Computer A.
- 1 2.5" 3.5" 5.25" 8" 10" 12" 14" 16" 18" 20" 22" 24" 26" 28" 30" 32" 34" 36" 38" 40" 42" 44" 46" 48" 50" 52" 54" 56" 58" 60" 62" 64" 66" 68" 70" 72" 74" 76" 78" 80" 82" 84" 86" 88" 90" 92" 94" 96" 98" 100" \$20

CASSETTES

- 2 ea. Prog. Tool Kit/Clipboard \$4 ea.
- 1 K&C 3 Program \$4 ea.
- 2 ea. Budget/Tools & Caps \$4 ea.
- 1 Algebra I \$5
- 1 Calculator \$5
- 1 ea. Strategy Football/Printer/Graphic \$25 ea.
- 1 ea. Organization/Assist \$25 ea.
- 1 All the above for only \$4.95 (includes shipping)
- 1 Memotech Controller interface \$25
- 1 Cable for above \$4.95
- 1 Advanced Budget \$4.95 ea.

- 1 Reason/Soft 7 software pages for the small business
 - 1 Customer Credit
 - 1 General Ledger
 - 1 Bank Diary
 - 1 Address and Phone File
 - 1 Accounts Payable
 - 1 Accounts Receivable
 - 1 Inventory
 - 1 Bank Checkbook
- All in plastic binder \$20
- For above call our reference #RCL0685

CNSN 11 Last updated: April 29, 1996

A new client has the following for sale:
You can own all of the items in this group for only \$480 pp.

- 1 Q1. Package includes \$150
 - 1 Q1. Computer
 - 1 Tripple Card 768K RAM
 - 1 Dual disk drive set, 1 5.25" H&C, 1 3.5" 720K
 - 1 Benlar Vase 13" B&B Monitor.
- 1 Memotech Controller printer interface \$25
- 1 Site Control 100 parallel dot matrix printer \$75
- 1 Q1. Computer (working) \$40

These items are in extremely good condition and will make someone a great package.

Please see reference #RCL0686

- You can own all of the items below for only \$250 pp.
- 1 TS-3088 Computer as original box \$20 pp
- 1 TS-3088 Computer with modified keyboard overlay \$25 pp
- 1 TS-3088 on card 1024K keyboard box with RAMPAK \$75 pp
- 1 Dual H. 1/2" 5.25" disk drive set as case w/ps \$100 pp
- 1 TS-3040 printer w/ps \$25 pp
- 1 High quality joystick \$15 pp
- 1 Continuous printer interface (AMCCO) \$40 pp
- 1 3.5" 2.5" Disk holders - each holds 10 disks \$10 pp

(All interfaces and adapters needed to run each item included, including disk interfaces)

Cassette software: T&S/WORD/Turbo/Modulo/Personal
accountant/Scrabble/TVU-F&S/Madame Code
Info/MATHEMATICS/Pro/Star/TS Count/Speed-
Math/MATH/TVU-100/Inventory Control/800
Spy/EXAS/TS Complete TS-100/200-81 BASIC Course.
(Followed by an "X" means also available on 3.5" disk)

Disk Software: MATH/TVU-File/One World \$1 \$25 pp
Operating system includes: AMCCO, H&C, Larkins and QDOS

Books \$10 ea.

Time/Forth, Profile 2088, the Essential Guide to TS computers, the TS-3088 Explained, VU-CALC, TS-1008/Use's Guide (2 vol.), TS-2048 Tech. Manual, Inside the TS-1000, the Star Trek 20-81/TS-2088, RAMPS Reg./Std. Guide (2088), RAMPS Int./Std. Guide (2088), EX Spectrum, Mastering TS-1000, S/ Clones (TS-1008/1300)

All documentation are included where possible

Please see reference #CCL0689

CNSN 17 Last updated: May 6, 1996

The second item is a 2088 Emulator for the IBM PC. Actually it is an overlay for an existing 280 emulator. This overlay, written by Keith Watson, allows us to run most 2088 software on our IBM machines. If you register the 280 emulator, you can even SAVELOAD to/from cassette tape via the parallel port as well as save to the floppy or hard drive. (The emulator also simulates the interface One microdrive and SAVES) RAMG will have both the software version of the 280 emulator and the 2088 overlay available very soon. If you order both at the same time, the cost will be just \$15 postpaid. We supply them on 3.5" 720K or 1.44M as well as 5.25" 360K or 1.2M MS-DOS format.

We have a new software package for anyone who might want to start their own B&B on a Times/LEADOS system. After more than 3 years of work, this software is now on-line in Arizona and the creator wishes to offer the program for sale to anyone else who may want to give it a try. The 501-B&B Program is being offered for the price of \$25.00 postpaid on Larkins disk. The system can be used with a variety of disk configurations. It works with a 2800 serial port and Larkins RAMUSER board. It operates flawlessly at 100 baud according to the writer. If you have an interest in giving it a try, give us a call or drop us a line for more information. Please include a legal 09 or 018) 8A22.

If you MS-DOS or PC-DOS users out there RAMG has written and is marketing a new utility package for DOS users. It is very user friendly and is a great way for beginners to get things done, such as formatting disks, copying/moving, renaming/deleting/moving files, as well as many other everyday things we DOS users need to do. It is called the RAMG UTE Package and the price is \$10 postpaid. Available on 3.5" or 5.25" disk. It makes use of PKZIP, ADIOS, and QEDIT shareware programs. All are available if needed. If you need all of them, the price would be \$20 postpaid. Let us know if you are interested.

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